REMARKS

Claims 1-28 are pending in the application.

The present invention is directed to storage and retrieval of connection data in a communications system by sending connection data from a server communications device to a data access device for storage. The connection information can later be retrieved from the data access device by the server communications device and used for optimal configuration of devices in the communications system, as well as for producing statistical reports of communication system usage.

Claims 1, 12, 23, 25 and 27 were rejected under 35 USC 103(a) as being unpatentable over Olafsson et al. (US2004/0096044) (hereinafter Olafsson) in view of Hendel et al. (US5313582) (hereinafter Hendel), and further in view of Rizvi et al. (US6199110). The rejection is respectfully traversed.

Olafsson is directed to a quick startup procedure for a modem system. Hendel relates to buffering within stations of a network.

In contrast, the present invention of claim 1 is directed to storage on a data access device of connection data sent from a server communications device. The connection data is associated with a current connection between the server communications device and the data access device.

The Examiner indicated that Olafsson teaches sending connection data, wherein the connection data is associated with a current connection between the server communication device and the data access device, from the server communication device to the data access device for storage. For support, the Examiner noted paragraphs [0051-0054] and [0074-0078].

Put simply, the paragraphs [0051-0054] and [0074-0078] in Olafsson do not teach or suggest sending any type or form of connection data from one modem to another modem for storage. Paragraphs [0051-0054] describe a flow diagram (FIG. 4) and a timing diagram (FIG. 5) relating to a quick connect procedure. Signals transmitted between the analog pulse code modulation modem (APCM) and the digital pulse code modulation modem (DPCM) are described, including a capabilities request signal, a quick connect identifier signal with a signal point identifier and a quick connect acknowledgment signal. These signals relate to a technique for establishing a quick connection between the modems. However, none of these signals are

"connection data" that is sent from one modem to the other to be stored for subsequent retrieval in a subsequent connection.

Turning now to paragraphs [0074-0078], there is described an exchange of constellation and modulation parameters between the APCM and DPCM modems, for use during the subsequent data mode, i.e., data transmission at full data rate. There is no teaching or suggestion that such parameters are to be stored for subsequent retrieval in a subsequent connection. The paragraph [0078] describes a reconnect procedure, whereby the modem system is configured to use stored analog and digital impairment information, equalizer settings, power levels, etc. to reset the modem parameters if the channel connection is interrupted by call waiting or other disruption. "In this scenario, both the client modem and the server modem may store the relevant system attributes, modem operating parameters, channel characteristics, and/or network characteristics." Again, there is no indication or suggestion that any such information is stored for subsequent retrieval in a subsequent connection.

The Examiner acknowledged that Olafsson does not teach the steps of sending, from the server communications device, to the data access device, a storage capability request for determining storage capability of the data access device; receiving, at the server communications device, a storage capability reply from the data access device; and sending, based upon the storage capability reply, connection data from the server communications device to the data access device, as recited in claim 1. The Examiner looked to Hendel for this feature. However, Hendel's approach of memory management is inapplicable, as it is directed to optimizing data transfers. The Examiner stated the view that one skilled in the art would incorporate the buffering taught by Hendel into the Olafsson system for the purpose of optimally using memory and minimizing host processor overhead by reducing the necessity of copying data between structures. However, steps not taught by Olafsson are not found in Hendel, as the steps recited in Claim 1 relate to storage capability as to communication data. Hendel is merely managing memory space. Hendel provides no suggestion or motivation relating to storage of current connection data sent from a server communications device to a data access device.

In the instant Office Action, the Examiner further acknowledged that Olafsson with Hendel does not explicitly teach sending and storing the connection data for subsequent retrieval by the server communications device or another server communications device during a

subsequent connection. The Examiner indicated that Rizvi (Abstract and col. 2, lines 5-13) teaches planned session termination, wherein session information is stored on the client for subsequent retrieval by the server, or another server. The Examiner concluded that it would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated the session information retrieval system, as taught by Rizvi, into the system of Olafsson-Hendel for the purpose of providing failover connectivity.

It is first noted that the present invention of claim 1 is not concerned with providing failover connectivity. Rather, as noted, claim 1 is directed to providing a technique for effective use of connection data history for configuring optimal sessions in data communications systems.

In Rizvi, the session state data reflects the current transaction state of a database session. This data includes a record of the state of every command or transaction sent over the session that has not completed. That is, the session state data relates to database transactions, and not to the connection itself. The Rizvi client stores the state of the session that is occurring with the first server, so that upon failure of the session, processing can continue where it left off after the client re-connects with a second server. In particular, the client is responsible for initializing the second database server 210 and session state data 212. (Col. 1, lines 31-33; col. 2, lines 5-7; col. 4, lines 24-38.)

Rizvi discloses that the database server sends to the client a database timestamp that reflects a snapshot of the database used to process a particular database select command. The timestamp is stored by the client and can be used with a subsequent select command. In particular, upon failure of the first session 216 with server 206 and establishment of a second session 220 with server 210, the client may re-submit the select command with the stored database timestamp. (Col. 7, lines 1-43.)

Thus, the only data explicitly stated as being sent from the server to the client for storage is the timestamp in Rizvi.

Claim 1 recites in part that connection data is sent "for subsequent retrieval by the server communication device or another server communication device during a subsequent connection". There is no subsequent retrieval *by* the server or another server in Rizvi, as required by claim 1. Rather, the timestamp is sent *to* the server by the client with a resubmitted select command. (Col. 7, lines 39-43.)

The foregoing remarks refer to the transfer of the stored timestamp from the client to the server. Whether or not the timestamp is considered session state data, any transfer of stored session state data is likewise initiated by the *client* and not by the *server* in Rizvi. See for example, col. 4, lines 24-26 where it is noted that the client driver interface initializes the second database server 210 and session state data 212 if database session 218 fails. Thus, Rizvi teaches away from the present invention of claim 1. Therefore, claim 1 is patentable over the cited combination of references Olafsson, Hendel and Rizvi.

Base claims 12, 23, 25 and 27 recite limitations similar to claim 1. In view of the foregoing, reconsideration of the rejection under 35 USC 103(a) is respectfully requested.

Claims 2, 4, 5, 9, 11, 13, 15, 16, 20, 22, 24, 26 and 28 were rejected under 35 USC 103(a) as being unpatentable over Olafsson in view of Rizvi. The rejection is respectfully traversed.

There is no teaching or suggestion in paragraphs [0051-0054, 0074-0078] that the modems of Olafsson pertain to retrieving from a data access device connection data associated with one or more prior connections, at least a portion of such data having been previously sent from the server communications device to the data access device for storage during one or more of the prior connections, as recited in Claim 2. Any such data in Olafsson is not sent and stored in the same manner as presently claimed.

In addition, there is no teaching or suggestion in Olafsson that prior connection data is sent from one modem to another in response to a data request. The Examiner acknowledged that Olaffson does not explicitly teach sending and storing connection data for subsequent retrieval by the server or another server during a subsequent connection. The Examiner indicated the view that Rizvi teaches planned session termination wherein session information is stored on the client for subsequent retrieval by the server or another server.

Claim 2 recites in part "receiving, at the server communications device, connection data from the access device, the connection data associated with one or more prior connections between the server communications device and the data access device, at least a portion of the connection data having been previously sent from the server communications device to the data access device for storage during the one or more prior connections." The connection data is received at the server communications device from the data access device in response to a connection data request sent by the server communications device to the data access device.

As noted above in the remarks addressing the rejection of claim 1, Rizvi discloses sending timestamp and session state data to a server from a client, with such transfers initiated by the client. Rizvi does not teach retrieval of connection data by a server, as required by claim 2. Thus, Rizvi teaches away from the present invention of claim 2. Therefore, claim 2 is patentable over the cited combination of references Olafsson and Rizvi.

Base claims 13, 24, 26 and 28 have limitations similar to claim 2. Claims 4, 5, 9, 11, 15, 16, 20 and 22 depend from base claims 2 or 13. Thus the foregoing remarks apply. In view of the remarks, reconsideration of the rejection under 35 USC 103(a) is respectfully requested.

Claims 6, 10, 17 and 21 were rejected under 35 USC 103(a) as being unpatentable over Olafsson-Rizvi, in view of Eldumiati (US2002/0012388) and further in view of Bhatia et al. (US6118768). Claims 3 and 14 were rejected under 35 USC 103(a) as being unpatentable over Olafsson-Rizvi in view of Karpoff (US2001/0049740). The foregoing claims are dependent from base claims 2 or 12. Thus, the foregoing remarks apply. As such, the rejections are overcome.

CONCLUSION

In view of the above remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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